A Study on Green Marketing: Consumer Awareness and Attitude towards Purchase Intention of Eco-Friendly Products with Special Reference to Coimbatore City.

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Abstract — Green marketing plays an important role in this present business scenario. The study aims at identifying the various factors associated with the purchase intention of the consumers towards eco-friendly products. Purchase intention is considered as the dependent variable and consumer awareness, and consumer attitude are considered as independent variables. Convenient sampling method is used for the survey. The result of this study helps in bringing out suggestions related to the implementation of green initiatives and importance of eco-friendly products to the government and the society.

Keywords — Green marketing, eco-friendly products, consumer awareness, consumer attitude, Purchase intention.

I. INTRODUCTION

Green marketing is the process of manufacturing and selling products or services which are not harmful to the environment and society. Nowadays, sustainable business practices are adopted in various sectors for the protection of environment. It is necessary to create environmental awareness among the society due to the various environmental issues such as pollution, toxic products, waste disposal, global warming. ISO 14001 standard provides organizations with the elements for an environmental management system to help achieve environmental and economic goals (Dale H. Besterfield).

A. Why Eco-Friendly Products Are Important:

There are various eco-friendly products. Some of them are bio-degradable bags, organic foods, cosmetic products, organic medicines and other household products. Eco-friendly products are naturally safe. These products are manufactured using materials which have no harmful impact on the environment. Usage of energy sufficient appliances and products helps to increase environmental sustainability.

B. Consumer Awareness, Consumer Attitude And Purchase Intention:

Consumer awareness refers to the consumer knowledge about various products and services. It clearly explains how far the consumers are aware about the information before buying a product. When considering eco-friendly products, consumers are very much aware about the quality, price and safety.

Consumer attitude means individual feelings and beliefs towards a particular product/service. It is developed based on consumer’s learned knowledge of the product, the feeling of likes or dislikes, evaluation of the product and the interaction among friends or family.

Purchase intention is the decision made by the consumer to buy a product. It is related to perception and attitude of the consumers. It depends on various external and internal factors such as value, outcome, emotional attachment, risks and costs.

Objectives

The objectives of the study are

i. To analyze the impact of environmental initiatives towards consumer awareness and attitude towards eco-friendly products.

ii. To examine consumer awareness and consumer attitude towards purchase intention of eco-friendly products.

II. REVIEW OF LITERATURE

Polonsky (1994) defined Green or Environmental Marketing consists of all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment.

Michael Jay Polonsky in his article “An introduction to green marketing” illustrated that an organization which is environmentally committed not only manufacture products that have less impact on the environment, but they should also take initiatives to follow environmental practices among stakeholders. The end consumers and industrial buyers should take steps to force the organizations to implement the environmental practices into their business culture and thus ensure that all organizations reduce the harmful environmental impact of their activities.
Justin Paul and Jyoti Rana (2012) in their study related to consumer behavior and purchase intention for organic food suggests that information regarding quality, taste and the environmental benefits mentioned by the organic food retailers may attract the end consumers.

Bhatia, Mayank Jain, Amit (2013) in their study found that level of awareness among the consumers about the green products are high but these consumers are not aware of the initiatives implemented by the government to the society. It is the responsibilities of the marketers to promote the green activities based on their product portfolio.

Shruthi P Maheshwari (2014) in her study illustrated the various aspects of consumer behavior and found that the preference of green products among the consumers are influenced by the green marketing strategies. Her finding suggests that consumers prefer the products which are genuinely environment friendly.

Vinay Kumar Dubey & Namita Gupta (2016) in their study found out the fact that people are aware of eco-friendly products and its importance but they are not reliable to certain factors like high cost and quality.

Vaishali Sethi and Dr. Manvinder Singh Tandon (2016) in their study on awareness, perception and green purchase intention of eco-friendly products found that, even though consumers were environmentally concerned and ready to pay premium price but still there is lack of knowledge towards environmentally friendly products. Hence the marketers should put more effort to create awareness and implement more marketing strategies. Based on the previous studies the following hypotheses referring to the purchase intention of eco-friendly products were proposed.

Hypothesis 1: Environmental initiatives do not influence on consumer awareness
Hypothesis 2: Environmental initiatives do not influence on consumer attitude
Hypothesis 3: The consumer awareness does not influence on purchase intention of eco-friendly products.
Hypothesis 4: The consumer attitude does not influence on purchase intention of eco-friendly products

IV. RESEARCH METHODOLOGY

The study follows descriptive research method with primary data. A structured questionnaire was used by the researcher to collect the primary data. The researcher chooses the respondents from Saravanampatti and Peelamedu area of Coimbatore city. The researcher collected primary data from malls, supermarkets and organic shops. The sample size is 244. The convenient sampling method is used for collecting responses.

The SPSS version 21 is used for analysing the data. Regression analysis and descriptive statistics are the tools used for hypothesis testing.

C. Data Analysis:

It is found from table 1 that 44.3% of respondents are males. 55.7% of respondents were females. 72.1% of respondents were belonging to age group (21-30) followed by 18% belonging to (31-40) and 4.9% of respondents belong to (41-50) and (51-60). 60.7% of respondent’s occupation was salaried. 21.3% of respondents belong to self employed followed by 14.8% belong to student group and 3.3% of respondents belong to others group. As far as family size is concerned 52.5% of respondents were belonging to family size (4 members), 21.3% of respondents belonging to family size (3members) followed by 13.1% belong to family size (5 members), 8.2% of respondents belonging to family size (more than 5 members) and 4.9% of respondents belonging to family size (less than 3). With regard to the monthly income 37.7% of respondents were belonging to (21000-40000), 36.1% of respondents were belonging to (below 20000), 9.8% of respondents were belonging to (41000-60000), 8.2% of respondents were belonging to (61000-80000) and above (80,000).

<table>
<thead>
<tr>
<th>Demographic Factors</th>
<th>frequency</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>108</td>
<td>44.3</td>
</tr>
<tr>
<td>Female</td>
<td>136</td>
<td>55.7</td>
</tr>
<tr>
<td>Total</td>
<td>244</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>AGE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-30</td>
<td>176</td>
<td>72.1</td>
</tr>
<tr>
<td>31-40</td>
<td>44</td>
<td>18.0</td>
</tr>
<tr>
<td>41-50</td>
<td>12</td>
<td>4.9</td>
</tr>
<tr>
<td>51-60</td>
<td>12</td>
<td>4.9</td>
</tr>
<tr>
<td>Total</td>
<td>244</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>36</td>
<td>14.8</td>
</tr>
</tbody>
</table>

Fig.1 Conceptual Framework

TABLE I: DEMOGRAPHIC FACTORS
Table II shows descriptive statistics results which interpret that awareness on non toxic products, awareness about health benefits, concerned about environment, recommendation to friends shows higher mean value.

**TABLE II: DESCRIPTIVE STATISTICS**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Mean</th>
<th>Std.Deviation</th>
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</thead>
<tbody>
<tr>
<td><strong>Environmental Initiatives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Implementation of green initiatives by TN Govt</td>
<td>3.0984</td>
<td>1.16483</td>
</tr>
<tr>
<td>b. Energy conservation programs for students.</td>
<td>3.7377</td>
<td>.91107</td>
</tr>
<tr>
<td>c. Cooperation of corporate industries with environmental initiatives.</td>
<td>2.8197</td>
<td>1.25841</td>
</tr>
<tr>
<td>d. Public concern about environment</td>
<td>3.2951</td>
<td>1.13055</td>
</tr>
<tr>
<td>e. Opinion on Usage of Public transport</td>
<td>2.5082</td>
<td>1.17789</td>
</tr>
<tr>
<td><strong>Consumer Awareness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Awareness on nontoxic products.</td>
<td>4.0984</td>
<td>.74621</td>
</tr>
<tr>
<td>b. Awareness on product brands.</td>
<td>3.4098</td>
<td>.73885</td>
</tr>
<tr>
<td>c. Awareness on environmental certifications.</td>
<td>3.2459</td>
<td>1.02723</td>
</tr>
<tr>
<td>d. Awareness about natural ingredients.</td>
<td>3.7377</td>
<td>.75059</td>
</tr>
<tr>
<td>e. Awareness about health benefits.</td>
<td>4.0164</td>
<td>.76358</td>
</tr>
<tr>
<td><strong>Consumer Attitude</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Trust On The product Information.</td>
<td>3.3443</td>
<td>.77212</td>
</tr>
<tr>
<td>b. Willingness To Pay Premium Price.</td>
<td>3.4426</td>
<td>.82714</td>
</tr>
<tr>
<td>c. Recommend To Friends</td>
<td>4.0820</td>
<td>.66571</td>
</tr>
<tr>
<td>d. Attention Towards Advertisements</td>
<td>3.6393</td>
<td>.93154</td>
</tr>
<tr>
<td>e. Satisfaction Of Needs</td>
<td>3.8197</td>
<td>.92210</td>
</tr>
<tr>
<td><strong>Purchase Intention</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Concerned about environment</td>
<td>4.0820</td>
<td>.73700</td>
</tr>
<tr>
<td>b. prefer to purchase eco-friendly products always</td>
<td>3.6721</td>
<td>.83109</td>
</tr>
<tr>
<td>c. Satisfied with the product</td>
<td>3.5410</td>
<td>.90506</td>
</tr>
<tr>
<td>d. Health benefits</td>
<td>3.9344</td>
<td>.87310</td>
</tr>
<tr>
<td>e. Prefer to buy products with offers</td>
<td>3.4590</td>
<td>.99287</td>
</tr>
</tbody>
</table>

Hypothesis 1: Environmental initiatives do not influence on consumer awareness.

It can be interpreted from table 2, that 16.8% of variance in the dependent variable consumer awareness is revealed by the environmental initiatives. It is found that the respondents’ opinion on public concern about environment explains about
26.8% of variance. Based on the opinion of respondents, Cooperation of corporate industries with environmental issues contributes to 21.2% of variance in dependent variable and energy conservation programs for students contributes 11.4% of variance in dependent variable. The respondents' opinion on implementation of green initiatives by TN Govt and on usage of public transport contributes 23.2% and 21.0% of variance in dependent variable consumer awareness.

The result of regression analysis is tested using ANOVA and f value (2.224) was found to be insignificant. Further, it can be seen that adjusted $R^2$ is equal to 0.93 which means that any time another independent variable is added to this model, the $R^2$ would change marginally only. Hence null hypothesis H1 is accepted.

**TABLE III: REGRESSION ANALYSIS: ENVIRONMENTAL INITIATIVES VS CONSUMER AWARENESS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig at 5% level</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>16.78</td>
<td>1.532</td>
<td>10.95</td>
<td>.000</td>
</tr>
<tr>
<td>Implementation of green initiatives by TN Govt</td>
<td>-.517</td>
<td>.343</td>
<td>-2.32</td>
<td>.137</td>
</tr>
<tr>
<td>Energy conservation programs for students.</td>
<td>.325</td>
<td>.472</td>
<td>.114</td>
<td>.494</td>
</tr>
<tr>
<td>Cooperation of corporate industries with environmental initiatives.</td>
<td>.438</td>
<td>.304</td>
<td>.212</td>
<td>.155</td>
</tr>
<tr>
<td>Public concern about environment</td>
<td>.617</td>
<td>.296</td>
<td>.268</td>
<td>.042</td>
</tr>
<tr>
<td>Opinion on Usage of Public transport</td>
<td>-.462</td>
<td>.290</td>
<td>-1.597</td>
<td>.116</td>
</tr>
</tbody>
</table>

**Hypothesis 2:** Environmental initiatives do not influence on consumer attitude.

It can be interpreted from table 3, that 12.4% of variance in the dependent variable consumer attitude is revealed by the environmental initiatives. The respondents opinion towards public concern about environment contributes 20.2% of variance in consumer attitude. Based on the opinion of respondents, cooperation of corporate industries with environmental issues contributes to 9.7% of variance in dependent variable and energy conservation programs for students contributes 3.4% of variance in dependent variable. The respondents opinion on implementation of green initiatives by TN Govt and usage of public transport explains about 30.1% and 15.7% of variance in dependent variable consumer attitude.

The result of regression analysis is tested using ANOVA and f value (1.555) was found to be insignificant. Further, it can be seen that adjusted $R^2$ is equal to .124 which means that any time another independent variable is added to this model, the $R^2$ would change marginally only. Hence null hypothesis H2 is accepted.

**TABLE IV: REGRESSION ANALYSIS: ENVIRONMENTAL INITIATIVES VS CONSUMER ATTITUDE**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig at 5% level</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>18.871</td>
<td>1.711</td>
<td>11.032</td>
<td>.000</td>
</tr>
<tr>
<td>Implementation of green initiatives by TN Govt</td>
<td>-.731</td>
<td>.383</td>
<td>-.301</td>
<td>-1.910</td>
</tr>
<tr>
<td>Energy conservation programs for students.</td>
<td>.105</td>
<td>.527</td>
<td>.034</td>
<td>.200</td>
</tr>
<tr>
<td>Cooperation of corporate industries with environmental initiatives.</td>
<td>.217</td>
<td>.339</td>
<td>.097</td>
<td>.640</td>
</tr>
<tr>
<td>Public concern about environment</td>
<td>.504</td>
<td>.330</td>
<td>.202</td>
<td>1.526</td>
</tr>
<tr>
<td>Opinion on Usage of Public transport</td>
<td>-.377</td>
<td>.323</td>
<td>-.157</td>
<td>-1.166</td>
</tr>
</tbody>
</table>

**Hypothesis 3:** The consumer awareness does not influence on Purchase intention of eco-friendly products.

It can be interpreted from table 4 that 37.6% of variance in the dependent variable Purchase intention is explained by consumer awareness. It is found that the awareness about natural ingredients explains about 32.9% of variance in Purchase intention. Awareness about health benefits contributes to 25.6% of variance in dependent variable and Awareness on nontoxic products contributes 23.5% of variance in dependent variable and awareness about
environmental certification contributes 12.6% of variance in dependent variable. Awareness about product brands explains 7.4% of variance in dependent variable “Purchase intention”.

The result of regression analysis is tested using ANOVA and t value (6.621) was found to be significant. Further, it can be seen that adjusted R² is equal to 0.319 which means that any time another independent variable is added to this model, the R² would change marginally only. Hence null hypothesis H3 is rejected and could be concluded that consumer awareness significantly influence purchase intention of eco-friendly products.

**TABLE V: REGRESSION ANALYSIS: CONSUMER AWARENESS VS PURCHASE INTENTION**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig at 5% level</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>5.154</td>
<td>2.723</td>
<td>1.892</td>
<td>.064</td>
</tr>
<tr>
<td>Awareness on nontoxic products</td>
<td>.984</td>
<td>.457</td>
<td>.235</td>
<td>2.152</td>
</tr>
<tr>
<td>Awareness on product brands</td>
<td>-.313</td>
<td>.613</td>
<td>-.074</td>
<td>.511</td>
</tr>
<tr>
<td>Awareness on environmental certifications</td>
<td>.383</td>
<td>.441</td>
<td>.126</td>
<td>.869</td>
</tr>
<tr>
<td>Awareness about natural ingredients</td>
<td>1.367</td>
<td>.550</td>
<td>.329</td>
<td>2.484</td>
</tr>
<tr>
<td>Awareness about health benefits</td>
<td>1.049</td>
<td>.507</td>
<td>.256</td>
<td>2.067</td>
</tr>
</tbody>
</table>

**TABLE VI: REGRESSION ANALYSIS: CONSUMER ATTITUDE VS PURCHASE INTENTION**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig at 5% Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>6.042</td>
<td>2.346</td>
<td>2.576</td>
<td>.013</td>
</tr>
<tr>
<td>Trust On The product Information</td>
<td>1.306</td>
<td>.469</td>
<td>.323</td>
<td>2.786</td>
</tr>
<tr>
<td>Willingness To Pay Premium Price</td>
<td>-.039</td>
<td>.474</td>
<td>.010</td>
<td>.082</td>
</tr>
<tr>
<td>Recommend To Friends</td>
<td>1.351</td>
<td>.651</td>
<td>.288</td>
<td>2.077</td>
</tr>
<tr>
<td>Attention Towards advertisements</td>
<td>.284</td>
<td>.407</td>
<td>.085</td>
<td>.697</td>
</tr>
<tr>
<td>Satisfaction Of Needs</td>
<td>.488</td>
<td>.446</td>
<td>.144</td>
<td>1.094</td>
</tr>
</tbody>
</table>


It can be interpreted from table 4 that 36.7% of variance in the dependent variable Purchase intention is explained by consumer attitude. It is found that trust on the product information explains about 32.3% of variance in Purchase intention. It is found that those who recommend to friends contributes to 28.8% of variance in dependent variable, and satisfaction of needs contributes 14.4% of variance in dependent variable and attention towards advertisements contributes 8.5% of variance in dependent variable. Willingness to pay premium price contributes 1.0% of variance in dependent variable Purchase intention.

The result of regression analysis is tested using ANOVA and t value (6.381) was found to be significant. Further, it can be seen that adjusted R² is equal to 0.310 which means that any time another independent variable is added to this model, the R² would change marginally only. Hence null hypothesis H4 is rejected and could be concluded that consumer attitude significantly influence purchase intention of eco-friendly products.

**V DISCUSSION**

Below discussion is based on the findings of the study.

A. **Demographic Factors:**

Majority of the respondents are females since they are involved in purchasing products for the family. Most of them
were belonging to age group (21-30) and they are salaried because the younger age group show more interest towards shopping in malls. Most of the respondents belong to family size (4 members) and majority belongs to monthly income (21000-40000). From this study, it can be easily analysed purchase intention differs from person to person based on their gender, age, occupation, income and family size.

Based on the previous study on impact of demographic variables for the purchase of green products, clearly suggests that consumer intention towards purchase of green products differ based on the demographic categories such as age, gender, income. (Vishal Kumar Laheri(2017)).

B. Environmental initiatives and consumer awareness:

The study reveals that environmental initiatives and consumer awareness shows insignificant relationship. So the initiatives taken by the government and other organizations are not influencing the awareness level. The previous study on consumer awareness on green products which also suggests consumers show concern for the environment but they are not motivated to follow environmental responsibilities. (P. Asha and R. Rathiha (2017)).

C. Environmental initiatives and Consumer attitude:

The study reveals that environmental initiatives and consumer attitude are insignificant, since the initiatives are not influencing the consumer attitude. The previous study on factors affecting consumer purchase decision on green products suggests that consumers tend to buy green products from the companies which are environmentally responsible. (Prashant Kumar and Bhimrao M. Ghodeswar (2015)).

D. Purchase intention and consumer awareness:

The study identifies that there is significant relationship between consumer awareness and purchase intention. This is due to the awareness about the importance of using eco-friendly products and its health benefits. The result of the study opines the previous study. (Sanjeev Kumar, Radha Garg and Anita Makkari (2012)).

E. Purchase intention and consumer attitude:

The present study identifies that there is significant relationship between consumer attitude and purchase intention. This is because consumers trust the product information and are satisfied by the product and also recommend to friends, family and peer group. So there is positive attitude towards intention to purchase these eco-friendly products. This is reported by Subooth Yusu and Zeenat Fatima (2015) in their previous study that eco-friendly products are good for environment and the products satisfy the needs of the consumers.

VI CONCLUSION

Manufacturing of eco-friendly products not only brings sustainable change in the society, henceforth it enhances intention of purchase. Government and corporate industries should take steps to bring more environmental initiatives. These initiatives create awareness among the consumers and this influences them to purchase eco-friendly products. Bringing out more environmental programs and initiatives for consuming eco-friendly products alone will not help, but the strict rules and laws should be enforced so that the attitude of the consumers show positive approach towards it.

REFERENCES